

## NEW: HNP022 Series Oil Purifier

For fluid viscosities up to 700 cSt

### Water in hydraulic, lubrication, power transmission and insulating fluids adversely affects fluid performance and is a threat to system reliability.

Water contamination promotes corrosion and fluid system component wear, resulting in reduced component life and increased maintenance costs. It also degrades fluid properties, leading to reduced lubricity and load carrying ability, oil oxidation and the resultant formation of acids, and additive precipitation. The consequences are reduced fluid service life and increased fluid procurement and disposal costs.

The 'Pall' HNP022 Series Oil purifier is designed for use with small to medium oil systems, particularly where high viscosity fluids are employed, and can effectively remove 70 liters of water per day from the oil\*.

The Pall HNP fluid conditioning purifier uses vacuum dehydration to remove 100 % free water and as much as 90 % of dissolved water. It will also remove 100 % of free and entrained gases and up to 80 % dissolved gases.

Vacuum dehydration is the most effective method of water removal at minimum cost and ease of use. Unlike other methods it removes both free and dissolved water and cannot burn or otherwise significantly alter the properties of the oil.

Particulate contaminant removal is achieved using high performance rated ( $\beta_{3(C)} > 1000$ ) Ultipleat® SRT filter elements.

In addition, a WS10 Series water sensor measures water content and temperature at the purifier inlet, allowing the purifier to operate only when the water content rises above a pre-determined level.

\* Water removal rates are affected by the fluid viscosity, temperature, form of water (free or dissolved) and the amount of water present. Pall utilizes a well defined and repeatable test procedure that ensures thorough dispersion of the water in the test fluid initially and throughout the test. The water removal rate shown is for tests with ISO VG 32 mineral based turbine lube oil at 60 °C in the range of 2.6% to 1.4% water. The removal rates at higher water concentrations will be significantly higher.

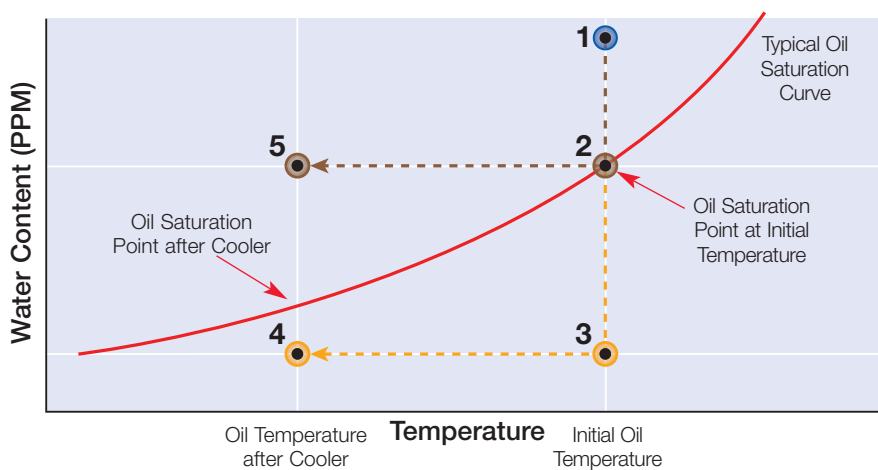


HNP022 Series Oil Purifier

### Select the HNP022 oil purifier for:

- High performance water, gas and particulate removal
- Extension of fluid service life
- Minimized corrosion within systems
- Reduced fluid disposal
- Reduced operating costs
- Increased equipment reliability
- Simple automated operation
- Remote monitoring option

### Removing free water is never enough!



- 1 Initial water content is above saturation (free water).
- 2 Maximum water removal capability of "free water removal" devices (coalescers, centrifuges, etc.) is to the oil's saturation point.
- 3 Water content achieved with mass transfer dehydration is significantly below the oil's saturation point.
- 4 Water content achieved with mass transfer dehydration remains below the oil's saturation point even after oil is cooled by the system heat exchanger. This prevents the formation of free water which is detrimental to fluid system components and the fluid.
- 5 If only free water is removed at initial temperature, when oil is cooled the amount of free water in the oil can increase significantly.

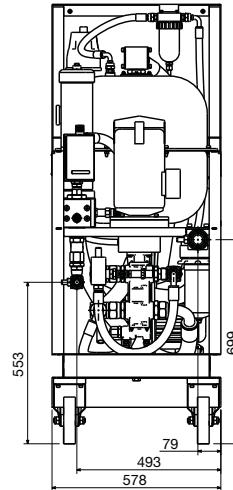
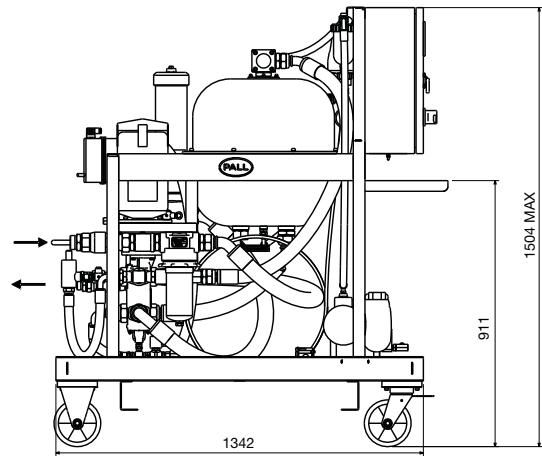
## Specifications

Dimensions:	1342 mm x 578 mm x 1504 mm
Dry mass:	250 kg (551 lb)
Inlet/Outlet connections:	See table 3 below
Max. Recirculation Flow rate:	25 L/min (6.6 US gpm)
Water removal rate*:	70 L/day (18.5 US gpd)
Inlet pressure:	1.5 barg (21.8 psig) maximum
System back pressure:	4.6 barg (66.7 psig) maximum
Fluid temperature:	+10 °C (50 °F) to +70 °C (158 °F)
Fluid viscosity:	700 cSt maximum
Operating vacuum:	-0.6 barg (18" Hg) to -0.9 barg (27" Hg) [adjustable]
Power supply:	See Table 1
Total Motor power:	2.22 kW maximum

## Materials of Construction

Base frame:	Carbon Steel, painted
Vessel:	304 Stainless steel
Hydraulic fittings:	Zinc plated carbon steel
Control box:	Carbon steel, painted
Hydraulic hoses and seals:	Fluorocarbon

**Note:** Pall fluid conditioning purifiers comply with all applicable EC directives and bears the CE mark.



## Ordering Information

### Part Number:

<b>HNP022</b>	<input type="checkbox"/>	<input type="checkbox"/>	<b>Z</b>	<input type="checkbox"/>	<input type="checkbox"/>	<b>EN</b>	<input type="checkbox"/>
	Table 1 Code 1	Table 1 Code 2		Table 2	Table 3		Table 4

**Note:** Z indicates fluorocarbon seals and chlorinated polyethylene hoses are standard. Other options are available; contact Pall.  
EN indicates English language as standard. Other language options are available; contact Pall.

**Table 1 - Standard Voltage/Frequency Options**

Code 1	Voltage	Code 2	Frequency	Control Voltage
F	110 Vac	5	50 Hz, 1Ø	24 Vdc
		6	60 Hz, 1Ø	
N	230 Vac	5	50 Hz, 1Ø	24 Vdc
S	400 Vac	3	50 Hz, 3Ø	
V	460 Vac	4	60 Hz, 3Ø	

Standard voltages only listed. Other voltages will be available on request - price and lead time will be provided on application.

**Table 2 - Mounting Options**

Code	Mounting Type
C	Castor - Ø6", 2 x fixed / 2 x swivel
N	Static - Mounting Channel c/w Ø10.5 bolt holes

**Table 3 - Process Port Connection Options**

Code 1	Type	Inlet	Outlet
P	Parallel	G1 ½ male to ISO228 c/w bonded seal surface	G1 male to ISO228 c/w bonded seal surface
T	Taper	1 ½ -NPT male to ANSI B1.20.1	1 NPT male to ANSI B1.20.1

**Table 4 - Optional Factory Fitted Kits**

Code	Kit
A	No optional kit(s) fitted
B	5m Electrical Cable and IEC 60309 Cable Mount Plug and Wall Mount Socket



25 Harbor Park Drive  
Port Washington, NY 11050  
+1 516 484 3600 telephone  
+1 888 333 7255 toll free US


Portsmouth - UK  
+44 (0)23 9230 3303 telephone  
+44 (0)23 9230 2507 fax

*Filtration. Separation. Solution.<sup>SM</sup>*

## Visit us on the Web at [www.pall.com](http://www.pall.com)

Pall Corporation has offices and plants throughout the world. For Pall representatives in your area, please go to [www.pall.com/contact](http://www.pall.com/contact)

Because of technological developments related to the products, systems, and/or services described herein, the data and procedures are subject to change without notice. Please consult your Pall representative or visit [www.pall.com](http://www.pall.com) to verify that this information remains valid. Products in this document may be covered by one or more of the following patent numbers: EP 667,800; EP 982,061; EP 1,380,331; US 5,543,047; US 5,690,765; US 5,725,784; US 6,113,784; US 7,083,564; US 7,318,800.

© Copyright 2009, Pall Corporation. Pall, , and Utleplate are trademarks of Pall Corporation. ® Indicates a trademark registered in the USA. *Filtration. Separation. Solution.<sup>SM</sup>* is a service mark of Pall Corporation.